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Inaugural Essay

on

Hepatitis.

For the Degree of Doctor of Medicine  
in the University of  
Pennsylvania.

By Samuel P. Byrd  
of  
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## Hepatitis

Knowing my utter inability with the little experience I have had in the practice of medicine to advance any thing new on any subject relative to it, I have determined, merely that I may comply with the rules of this Institution, to select this subject which has been treated of by almost every author, and simply to detail its history, and treatment

Hepatitis has generally been considered of two kinds; the one acute, and the other chronic. First of acute Hepatitis. Both the peritoneal covering, and parenchyma of the liver are subject to acute inflammation.

The symptoms denoting inflammation of the liver, whether of the peritoneal covering, or the substance are the same namely, Pyrexia accompanied with pain in the

# History

History is the study of the past, of the events and actions of men and nations, and of the causes and consequences of these events and actions. It is a science which seeks to discover the laws which govern human conduct, and to apply these laws to the present and future. History is not only a science, but also an art, for it requires the skill of the historian to select and arrange his materials, and to present them in a clear and interesting manner.

History is a branch of knowledge which is of great importance to the human race. It is the only way in which we can learn from the mistakes of our ancestors, and it is the only way in which we can understand the present and the future. History is also a source of inspiration and of moral instruction, for it shows us the lives of great men and the deeds of great nations, and it teaches us the lessons which they have to offer.

History is a subject which is of interest to all men, for it is the story of our common humanity. It is a subject which is of great value to the individual, for it helps him to understand himself and his place in the world. History is also a subject which is of great value to the nation, for it helps it to understand its own past and its own future.

right hypochondrium, most usually extending to the back, and shoulder of the same side, which is much increased on pressure, a dry cough, difficulty in breathing, and lying, except on the side affected, and sometimes on neither side, nausea and sometimes vomiting of a bilious matter, costiveness, and when stools are procured, they are indicative of the want of the biliary secretion, the urine of a deep saffron colour, and small in quantity, there is a loss of appetite, great thirst, with a strong, hard, and frequent pulse, the skin hot, and dry, the tongue covered with a white fur, and when the disease has continued for several days, the eyes, and skin become tinged with a yellowish colour resembling that of jaundice.

We do not always, however, find the symptoms of the same degree of violence as are here described, thus in some cases the fever



is very violent, in others scarcely perceptible, in some instances the pain is very acute, in others the disease has gone on to suppuration without any pain being experienced, when the peritoneal covering is inflamed the pain is very acute, when the substance of the liver is the seat of the disease the pain is obtuse.

The appearance of the blood before it coagulates is remarkable, the red globules falling to the bottom, and the fluffy coat not being formed, it appears of a green colour; this is supposed to be owing to the mixture of the bile with the purple coloured venous blood, as yellow, and purple form green.

Causes. They are, besides such as produce inflammations generally, as blows, falls, wounds &c intense heat of the sun, violent exercise, long continued Intermittents, and Remittent fevers, the improper use of ardent spirits, mental anxiety, suppressed sec-





tion, the translocation of other diseases, and the derangement of the digestive functions.

**Diagnosis.** In consequence of cough, and difficulty of breathing being symptoms of Acute Hepatitis, it is sometimes mistaken for Pneumonia; It may be distinguished in this way, In the former, the cough is not increased by a long inspiration, and also by the pain extending to the shoulder, and the sallowness of the complexion.

~~It may be distinguished from~~ The patient being able to retain medicine, and other substances in the stomach without, the immediate rejection of them, and the less prostration of strength since distinguish it from Gastritis.

It may be distinguished from spasm of the gall ducts, by the pain in the former being of a permanent nature, and by the patient being able to lie in a horizontal posture, whereas, in the latter, the pain is of a spasmodic nature,



and the patient is easier when the body is bent on  
the knees. Some writers (among whom is Dr John Keble  
horn) have endeavoured to make a distinction be-  
tween the inflammations of the convex, and con-  
cave surface of the liver from the symptoms which  
may occur. They say when the Membranes covering  
of its superior convex part, or the Ligaments which  
unite it to the diaphragm are inflamed, the pain  
press, cough, and difficulty of breathing are much  
more violent, than when its interior pulpy sub-  
stance, or its concave inferior part is the seat of  
the inflammation; which being less nervous, are  
less susceptible of the morbid cause. For the opinion,  
Dr Thomas, who has had every opportunity of ascertain-  
ing its truth from a long practice in the West In-  
dies (where Hepatitis is a disease of frequent oc-  
currence) says there is no foundation.

Dr Keble supposed that the peritoneal covering  
of the liver is always the seat of acute Hepatitis, and

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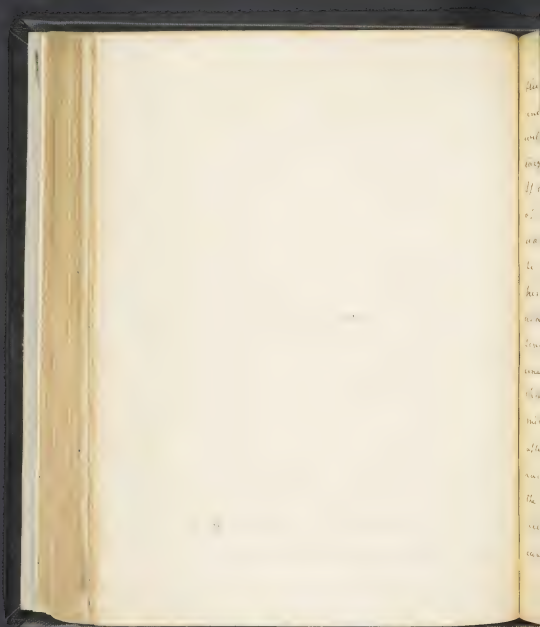
**Prognosis.** This disease is not generally attended with immediately fatal consequences. It is sometimes cured in consequence of a hæmorrhage from the nose or hæmorrhoidal vessels, it sometimes terminates in a diarrhoea, or by an evacuation of urines, depositing a copious sediment. It has been known to cease on the appearance of Erysipelas of the face. The most favourable signs, are the abatement of fever, and pain, an improvement in the complexion, a return of the appetite, and no considerable loss of strength. Intensity of pain, considerable heat, and dryness of skin, thirst, costiveness, and rigors denote a progressing suppuration.

**Terminations.** Hepatitis, like other inflammations, may either end in resolution, suppuration, or gangrene. In this country resolution is the most frequent termination, but in warm climates, as in the West Indies, it runs its course

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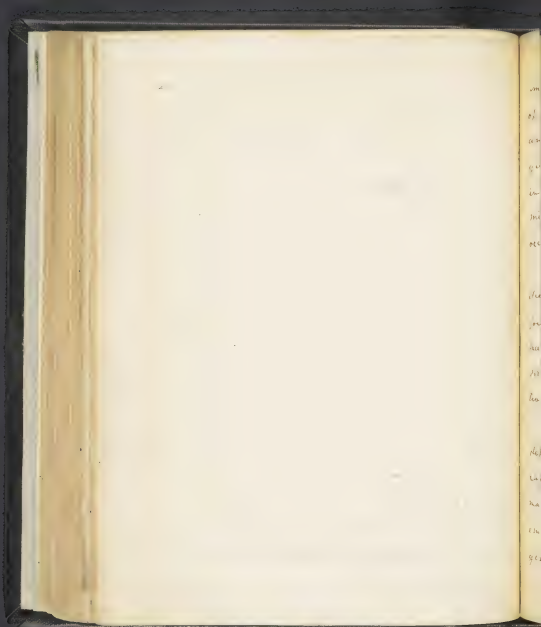
rapidly, so that if not arrested in its career by medical aid, it soon terminates in suppuration. That suppuration will take place may be inferred from the pain continuing intense, the pulse full, and hard with rigors, in defiance of our remedies, and when it has actually occurred, there is a sense of weight in the part affected, with throbbing pain together with symptoms of hectic fever, as occasional flushings of the cheek, and night perspirations.

When suppuration has taken place, the further progress of the disease is various. Adhesions sometimes form between the surface of the liver, and parieties of the abdomen. The tumour becomes more, and more prominent, and finally the matter is discharged through an external opening. The situation of such a tumour is generally between the third, and fourth false ribs. If the abscess is apparent, by pressure with the fingers there will be perceived a





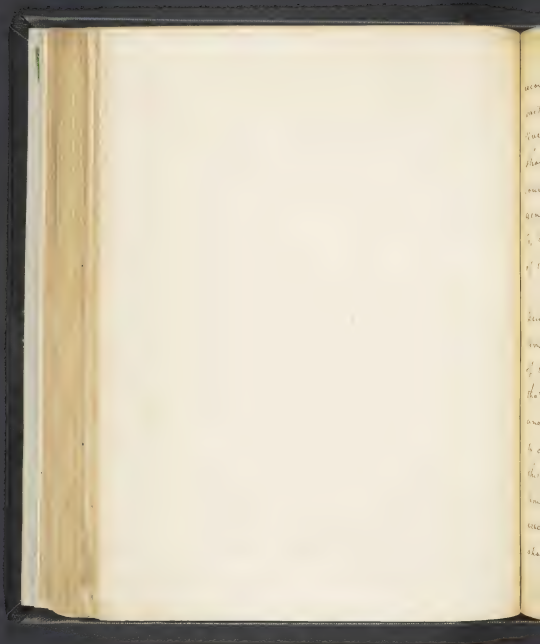
fluctuation in the abscess, while the circumference remains hard. The colour of the skin will be little changed until the abscess is very large or the matter which it contains very acid. If there be no adhesions between the parietes of the abdomen, and the liver, and the walls of the abscess are thin, the matter will be discharged into the cavity of the abdomen, bringing on peritoneal inflammation, and as a consequence death. Sometimes the matter finds its way into the colon, and stomach in consequence of adhesions between the liver, and those parts, and is evacuated by stool, or vomiting. Patients have been known to recover after there was reason to believe such an event had taken place. And lastly by erosion of the diaphragm the contents of abscesses have been known to find their way into the cavity of the thorax producing empyema.



empyema, and sometimes, but rarely, in consequence of adhesions between the inferior lobe of the lungs, and diaphragm the matter has been discharged along with the bile through the bronchia in the form of bilious expectoration. The termination of Hepatitis in gangrene is a rare occurrence.

On dissecting those who die of acute Hepatitis, the liver is frequently found hard, and indurated, with its membranes altered by inflammation. Adhesions are sometimes found to have taken place between the liver, and neighbouring parts.

In the treatment of acute Hepatitis, as its progress to suppuration is very rapid, the general means of obviating inflammation should be rigidly enforced by chiefly employing the antiphlogistic regimen. After general, and copious bleeding, the most early



recourse should be had to depletion from the  
part by means of cups over the region of the  
liver, together with warm fomentations.  
Should no material relief be obtained in the  
course of a few hours from this treatment,  
general bleeding must again be had recourse  
to, to an extent proportioned to the urgency  
of the case, and strength of the patient.

Purging seems to be a means  
peculiarly adapted for diminishing inflamma-  
tion of the liver. By increasing the secretions  
of the alimentary canal, it has been supposed,  
that congestion of blood in the Vena Portarum,  
and consequent distention of the liver may be,  
to a certain extent, relieved, or prevented. For  
this purpose Calomel is the best purgative  
from the peculiar power it possesses of in-  
creasing the secretions of the liver. Large doses  
should be given over night, to the amount of

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15 or 20 grains, to be purged off the next morning by some saline purgative, as the Glauber or Epsom salts.

After the symptoms have been sufficiently reduced by the means, a large blister should be applied over the region of the liver; if it heals up before the desired effect is obtained, it should be repeated. As auxiliary means, after inflammation has been reduced by the previous treatment, all doses of Antimony and Nitro in the form of rhubarb powder may be given for the purpose of determining to the surface.

If the disease does not give way in the course of five or six days by these means, we must call in the aid of mercury. A slight ptyalism will be sufficient, kept up in some time. It may be

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excited by rubbing into the side even as a draught  
of the mercurial ointment, or by giving a grain  
of Calomel every morning and evening, or four  
grains of the blue pill three times a day, at  
the same time continuing the fictions if we  
wish to restore the salivation rapidly. The  
disease sometimes yields as soon as the sali-  
vation takes place, at others, it is necessary  
to continue it for some time.

Some practitioners are  
in the habit of employing Mercury in the  
first stage of this disease with the inten-  
tion of producing salivation, but I believe  
this practice is discountenanced in this  
country as highly pernicious. It is very dif-  
ficult to produce salivation in the first  
stage of any inflammatory disease, and  
the action of the metal when given  
with such intention, instead of diminish-

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ing, generally increases the inflammatory action, and thereby renders the use of the sweats, and other depleting means more necessary. The whole of the antiphlogistic regimen should should be pursued. The diet should be of the mildest kind, as sage, arrow root, tapioca, and gruel, carefully avoiding all animal food. The thirst should be assuaged by cooling drinks, impregnated with vegetable acids, The apartment of the sick should be kept cool, and the bowels during convalescence opened occasionally by the use of some mild aperient.

When the remedies which have been recommended have failed to produce the desired effect, and suppuration has ensued, we should endeavour to promote the formation of a proper pus, and the discharge of the abscess externally. For this purpose a nourishing diet, together

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with the free use of Tonics, (as the Peruvian bark  
and the Mineral acids) and a moderate quan-  
tity of wine, should be recommended. A  
emollient poultice should be kept constant-  
ly applied over the part untill the tumour  
softens, and an evident fluctuation can  
be perceived; when it should be immedi-  
ately opened. This is best done by dissecting  
through the integuments in the most impens-  
ding position down to the abscess with a  
scalpel, and then piercing it with a Troc-  
char, which is preferable to the lancet, in  
as much as, we have it in our power to  
these means to let off the contents gradually  
and slowly: To facilitate the discharge of  
the matter, the patient should be placed  
in a favourable position, and a roller  
should be applied around his abdomen.  
After this simple dressing will be neces-

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ry. To prevent the lips of the wound from  
healing before the internal parts, it is hoped  
that lint dipped in some mild oil should  
be placed in them. In the mean time  
the strength of the patient should be  
supported by a nourishing diet, Tonics, and  
mild exercises, if he be able to bear it.  
His bowels should be kept open by mild  
aperient Medicines, and vicissitudes of  
weather should be carefully avoided.

### Chronic Hepatitis.

This form of the disease is most commonly  
the sequel of the acute, but occurs sometimes  
as an original disease.

The symptoms of chro-  
nic Hepatitis are loss of appetite, loss of  
spirits, a sense of weight in the right side,  
the skin, and adnata of the eyes of a yellow

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colour, the bowels ~~eat~~ time, the stools of a clay colour, the urine high coloured, and depositing a pink sediment, together with symptoms of dyspepsia, as anxiety, and cramps in the stomach, flatulency, and indigestion. The pulse is most commonly quick, and chorded. All these symptoms are sometimes so moderate, as scarcely to be noticed by the patient himself, even hepatic abscesses have been discovered on dissection which had given no inconvenience during life, nor were ever suspected to exist, though such abscesses must have been the consequence of peritonitis, and progressive inflammation. It notwithstanding the presence of these symptoms, or if they should be so obscure as to throw any doubt on the nature of the disease, it will be best to make an examination; which may be done by requesting the patient

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to lie on his back with his knees drawn up, and at the same time to take a full inspiration, when the physician will be enabled to detect any enlargement, if such should exist. But this will not always throw light on the nature of the disease, because it may be diseased without being enlarged, or if it be enlarged, it may be either from scirrhus, tubercles, abscesses, or a more morbid growth, between which it will be impossible to distinguish by a mere examination.

The causes of chronic

Hepatitis are the same as those of the acute.

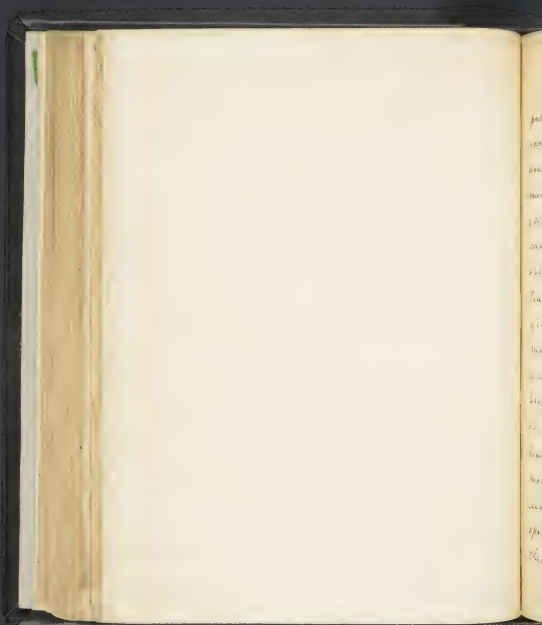
\*The extravagant use of ardent spirits, to which the inhabitants of Southern climates are addicted is one of the most frequent causes of it.

\*The abuse of Mercury, and premature use of tonics in the treatment of our autumnal fevers is also a frequent cause of ~~our~~ chronic Hepatitis.

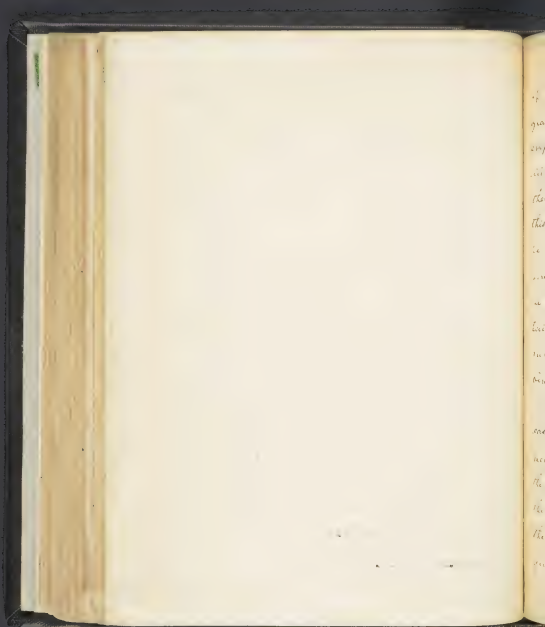
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On dissections after death the most common appearances, are enlargements of the liver without any alteration of structure, atrophies are occasionally met with in the substance of the liver, but one of the most frequent occurrences is the formation of Tubercles. Hydatids have been met with both in the substance of the liver, and on its exterior covering, and in some few instances the liver has been found to have been entirely destroyed, leaving its vessels alone.

A patient may survive a long time with this disease, but in most cases it sooner, or later terminates in dropsy, which almost always proves fatal. Our prognosis should therefore be guarded, particularly in persons advanced in years. The probability of success will depend on the extent of <sup>the</sup> morbid derangement which the structure of the liver has undergone, and the constitution of the patient.



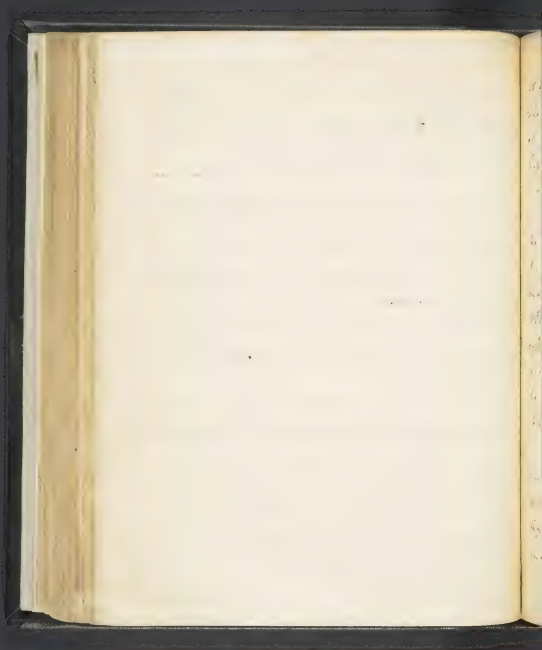
If when first called to a patient labouring under this disease, we have no reason to believe any organic derangement has taken place, it will be best to commence the treatment with frequent, small, and repeated bleedings, (about six annus should be taken daily) at the same time the bowels should be kept constantly open, by Calomel, or the blue pill, and some neutral salt. Six grains of the blue pill may be given every night to be purged off the next morning by a dose of Epsom salts. If there is any local uneasiness a few cups may be applied, and afterwards the frequent application of blisters will be very useful. When the liver has been much enlarged, a plaster of Gum moriacum spread largely over the surface is recommended. The dandelion has been highly spoken of as a deobstruent, in the treatment of this disease. It should be given in the dose





of half a drachm of the extract, or ten or fifteen grains of the powder twice a day. If after having employed these means for some time, and no result is obtained, we may rationally suppose that there exists some organic derangement, and in this event, an alterative course of Mercury will be highly useful. It should be continued for some time. If the stomach of the patient should be so very irritable as not to enable him to retain the medicine, it may be administered by rubbing into the side a half drachm of the ointment daily.

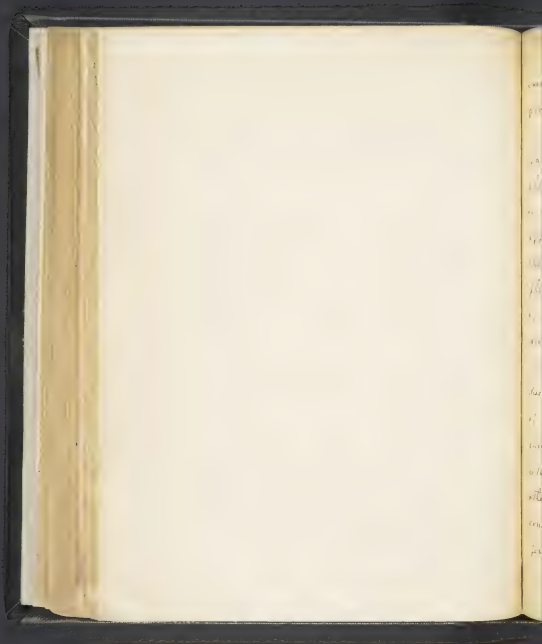
In this stage of the disease the Nitro Muriatic acid has been highly recommended, given both internally, and externally in the form of a bath. As much as two drachms of the acid greatly diluted may be taken during the day. It should be secured through a glass, and be much carefully washed, as



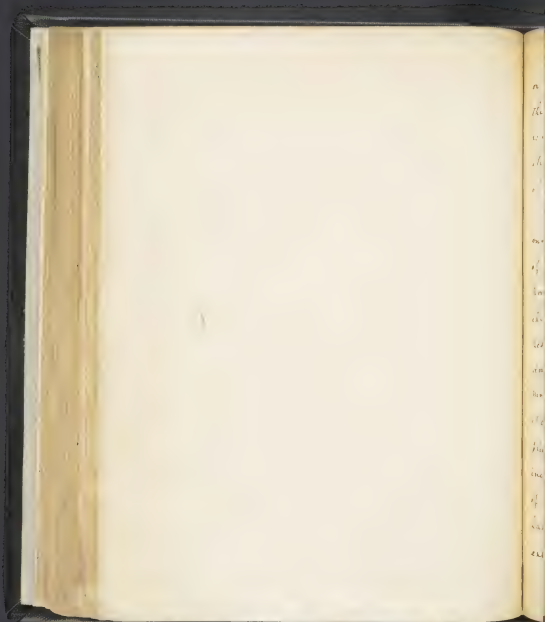
it is apt to engender the best rules applicable to them.  
The rules should be given in the order, in persons  
of a moderate intellect, and in order of masses. The  
best method is to give the rules of arithmetic  
in order.

The course of arithmetic should  
be given to the children in the order of the  
first, second, third, fourth, fifth, sixth, seventh,  
eighth, ninth, tenth, eleventh, and twelfth  
grades. The first grade should be given to the  
children of the first grade, the second to the  
children of the second grade, the third to the  
children of the third grade, the fourth to the  
children of the fourth grade, the fifth to the  
children of the fifth grade, the sixth to the  
children of the sixth grade, the seventh to the  
children of the seventh grade, the eighth to the  
children of the eighth grade, the ninth to the  
children of the ninth grade, the tenth to the  
children of the tenth grade, the eleventh to the  
children of the eleventh grade, and the twelfth to the  
children of the twelfth grade.

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children of the twelfth grade.







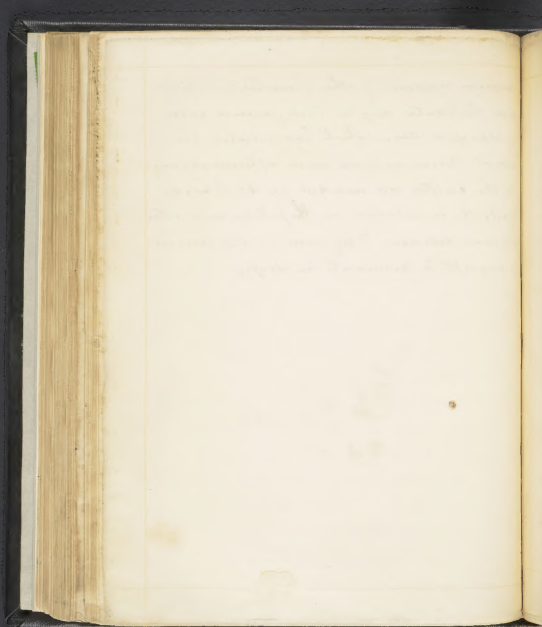
a limon colour, the skin is clay coloured,  
the integuments are loose and flabby, there  
is a disposition to oedema of the lower extremi-  
ties, and a sense of weight in the upper  
of the limbs.

A removal to a higher, and  
more healthy situation will be the best means  
of effecting a cure, but with regard to those, who  
from particular circumstances cannot leave  
their homes, we must resort to mercury as the  
best means of cure. It may be given in small  
doses several times during the day until the  
mouth is slightly affected. If from any cause  
it cannot be given internally, its external ap-  
plication may be substituted in the form of  
inunction, rubbing into the groins a scruple  
of the ointment every day. Mercury, however,  
has been employed in many cases of these  
enlargements unsuccessfully, which were ap-





towards removed by other remedies, in which  
case the Cicuta may be tried; several cases  
of enlarged liver which had resisted the  
use of Mercury, and were afterwards cured  
by the Cicuta are recorded by Dr Charles  
Griffith in a work on Hepatitis, and other  
Bilious diseases. This form of the disease  
is very apt to terminate in dropsy.



No 51

Ch

235 Market.

Paid March 6<sup>th</sup> 1828

